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DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES# U-3

MEMORANDUM FOR   Ruth Ann Killion
                    Chief, Planning, Research, and Evaluation Division

From: Howard Hogan
                    Chief, Decennial Statistical Studies Division

Subject: Study Plan for the Analysis of Clusters with No Housing Unit
                    Matching, N.4

Attached is the study plan for the Analysis of Clusters with No Housing Unit Matching, N.4.
The Census 2000 Evaluation Program quality assurance process was applied to the methodology
development and the study plan review process. The study plan is sound and appropriate for
completeness and accuracy, and it answers its intended category questions as appropriate.

If you have questions about this study plan, please contact Xijian Jim Liu on (301) 457-8325.

Attachment (Analysis of Clusters with No Housing Unit Matching, N.4. Study Plan)

cc: Evaluations Executive Steering Committee
        Keith Bennett (PRED)
        Linda Brudvig
        Jason Machowski
        Danny Childers (DSSD)

<p style="text-align:center">**Census 2000 Operational Summary**
Study Plan
(Final)</p>

I.   Name of Operation

       Analysis of Clusters with No Housing Unit Matching.
       DSSD Census 2000 Evaluation Project N.4.

II.   Project Managers

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III.   Operational Background

       A.   Census 2000

              The Accuracy and Coverage Evaluation (A.C.E.) measures the overall and
differential coverage of the US population in Census 2000. It uses dual system
estimation which requires two samples, the P-sample and the E-sample. The P-
sample consists of people enumerated independent of the census. The E-sample
consists of people enumerated in the census. The major steps of the A.C.E. are
housing unit matching and person matching. In the housing unit phase, housing
units within the sample block clusters were listed and matched to the January
2000 version of the DMAF. Housing units were first matched using a computer.
Then followed a clerical review which includes a clerical match and a clerical
search for duplicates.

              There was no housing unit matching for the 424 list/enumerate clusters in the
housing unit phase. Seventy-six clusters having 80% of the A.C.E. addresses
coded GI (geocoding error) during after follow-up coding were relisted. The
original housing unit matching for relisted clusters was ignored, making these
clusters also have no housing unit matching in the housing unit phase. A match
code of UI was assigned to the A.C.E. housing units in the relisted clusters and
the list/enumerate clusters. The code for census housing units in the relisted
clusters and the list/enumerate clusters was blank. In these clusters, none of the
HCUF housing units correspond to housing units on the subsampled preliminary
enhanced list because of no prior housing unit matching. A systematic subsample
was taken to select HCUF housing units in the E-sample if there were 80 or more
HCUF housing units in the cluster. In this case, the P-sample and E-sample are
not overlapped. Housing unit matching will be performed the first time in these
clusters in the final housing unit operation.

No housing unit matching means that these clusters have had no clerical search for duplicated housing units and that these clusters include addresses that could have been deleted during housing unit matching (i.e. under construction, future construction, unfit for habitation, vacant mobile home site or other). Addresses in these clusters were not eligible for telephone interviews. The P-sample and E-sample in these clusters were not overlapped if there were 80 or more census housing units in the cluster. As consequences, duplicate rates, person interview workload and follow-up interview workload in these clusters may be affected.

IV.   Questions to be Answered and Methodology

The objective of this study is to analyze the effect of no housing unit matching on person matching.

1.   Is there any effect of no prior housing unit matching on person matching? More specifically, will we observe lower duplicate rates and increased person interview workload in these clusters? Will we observe higher nonmatch rates and increased person follow-up interview workload in clusters of non-overlapping E-sample and P-sample?

    a.   Methodology

        Compute and compare the P-sample person nonmatch rates, E-sample person erroneous enumeration rates as well as percent of duplicates and percent of unresolved in relisted clusters and non-relisted clusters by type of enumeration area. P-sample person nonmatch rate is the weighted number of P-sample nonmatches divided by the weighted number of P-sample persons. E-sample person erroneous enumeration rate is the weighted number of erroneously enumerated persons divided by the weighted number of E-sample persons. We will consider these variables: US/PR, region, single/multi-unit, urban/rural, overlapped samples/non-overlapped samples, and mover status.

        Use preliminary P-sample outcome codes from CAPI interviewing to examine the workload of person interviews conducted in relisted clusters at addresses with unit statuses 2, 3, 4, 7 and 8 (i.e. under construction, future construction, unfit for habitation, vacant mobile home site and "other") that could have been deleted during housing unit matching if it had been done. These will be compared to the number for addresses with the same unit status codes that were deleted in non-relisted clusters. We will consider these variables: US/PR, region, single/multi-unit, urban/rural.

b.   Limitations

List and Enumerate clusters are located in sparsely populated remote areas and have higher percent of rural style addresses. We will not include L/E clusters in the analysis because the differences could be due to the nature of L/E cluster itself, not with no housing unit matching.

c.   Processing Requirements

(1)   Programming and Computer

The data used in this study will be extracted from:

- ACE HUMaRCS files and PERMaRCS files,
- ACE sample design file,
- DMAF and HCUF files,
- Missing data files.

These data files will be provided by DSSD and are expected to be available in July of 2000.

1.   What are the effects of non-overlapping E-sample and P-sample on matching? Will Clusters with non-overlapping samples observe higher nonmatch rates and increased person follow-up interview workload?

a.   Methodology.

Compare the P-sample person nonmatch rate and the person following-up interview workload between clusters with overlapping samples and clusters with non-overlapping samples. This analysis will be done for relist clusters as well as L/E clusters.

We will consider these variables: US/PR, type of enumeration area.

b.   Limitations

c.   Processing Requirements

(1)   Programming and Computer

The data used in this study will be extracted from:

- ACE HUMaRCS files and PERMaRCS files,

- ACE sample design file,
- Missing data files.

These data files will be provided by DSSD and are expected to be available in July of 2000.

V. Limitations.

VI. Milestone Schedule

Activity		Start Date	End Date
1.	Develop Study Plan	*03/01/00*	*06/30/00*
2.	Specify Data Needs	*03/01/00*	*06/30/00*
3.	Specify Other Activities	*03/01/00*	*06/30/00*
4.	Finalize Study Plan	*06/01/00*	*08/31/00*
5.	A.C.E. Housing Unit Matching	*02/07/00*	*04/18/00*
6.	A.C.E. Person Phase	*05/08/00*	*11/30/00*
7.	A.C.E. Final Housing Unit Operation	*03/07/01*	*05/22/01*
8.	Delivery of the Data	*07/01/01*	*07/31/01*
9.	Start Analysis	*07/01/01*	*10/31/01*
10.	Start/End First Draft of the Report	*10/01/01*	*12/31/01*
11.	Roundtable Presentation	*12/01/01*	*12/31/01*
12.	Start/End Second Draft of the Report	*01/01/02*	*03/31/02*
13.	Prepare Final Report for Signature	*04/01/02*	*05/31/02*
14.	Report is Issued	*06/01/02*	*07/31/02*

VII. Related Studies/Operations

Type of Enumeration Area.
DSSD Census 2000 Evaluation Project O.1.

VIII. References
Accuracy and Coverage Evaluation: The Design Document, Danny R. Childers, DSSD Census 2000 Procedures and Operations Memorandum Series, Chapter S-DT-1.